a support surface; and

a plurality of modified oligonucleotide compositions, each composition comprising a plurality of oligonucleotides stably associated with a distinct area of the support surface;

wherein at least one nucleotide of each oligonucleotide in each composition is comprised of a substitution at the 2' position of the ribose group, said substitution distinguishing said nucleotide from a naturally occuring nucleotide; and

further wherein each stably associated oligonucleotide on the support surface exhibits substantially the same T_m when bound to a target nucleic acid; and

still further wherein each oligonucleotide is characterized by a pH stability of at least one hour at 37°C at a pH in a range of about 0.5 to 6.

23. (New) The array of claim 22, wherein each oligonucleotide further comprises an end block in a position selected from the group consisting of 3' of the test sequence of the oligonucleotide and 5' of the test sequence of the oligonucleotide, and wherein each oligonucleotide is characterized by an exonuclease resistance of at least twice that of a naturally occuring oligonucleotide having the same number of residues.

24.(New) The array of claim 22, wherein the T_m of each composition is are substantially the same by varying the length of the oligonucleotides in each composition.

25.(New) The array of claim 22, wherein the target nucleic acid is RNA.

26.(New) The array of claim 22, wherein the target nucleic acid is DNA.

27. (New) The array of claim 22, wherein the modified oligonucleotide is further characterized by modification of at least 25% of the internucleoside linkages of the oligonucleotide.